

REMARKS

The Office Action mailed November 3, 2005, has been received and reviewed. Claims 1-64 are currently pending in the application, of which claims 1-46 and 59-64 are currently under examination. Claims 47-58 are withdrawn from consideration as being drawn to a non-elected invention. Claims 1-46 and 59-64 stand rejected. Applicant respectfully requests reconsideration of the application based upon the following remarks.

35 U.S.C. § 102(b) Anticipation Rejections

Anticipation Rejection Based on U.S. Patent No. 5,459,000 to Unno

Claims 1-21 and 59-64 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Unno (U.S. Patent No. 5,459,000). Applicant respectfully traverses this rejection, as hereinafter set forth.

Claims 1 and 59 are independent claims. Unno fails to describe each and every recitation of Claims 1 and 59 and therefore fails to anticipate those claims because a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Unno's failure to describe each and every recitation of independent Claims 1 and 59 precludes an anticipation rejection.

Claim 1 recites, in part, "a reticle including at least one first patterned region at least partially surrounded by at least one second patterned region" which is not described by Unno. Although Unno may generally describe patterns formed on a reticle, Unno does not expressly or inherently describe a reticle having a first patterned region at least partially surrounded by a second patterned region as recited in Claim 1. The failure of Unno to expressly or inherently describe such a structure precludes an anticipation rejection of independent Claim 1.

Similarly, Claim 59 recites, in part, "a method of fabricating a polarized reticle comprising: providing a reticle having at least one first patterned region at least partially surrounded by at least one second patterned region." Unno fails to describe, either expressly or inherently, a method whereby a reticle is provided having one patterned region at least partially surrounded by a second patterned region as recited in Claim 59. The lack of such description

precludes an anticipation rejection under 35 U.S.C. § 102(b).

The failure of Unno to anticipate Claims 1 and 59 also precludes an anticipation rejection of dependent Claims 2-21 and 60-64. In particular, the dependent claims inherit by dependency all of the recitations of Claims 1 and 59, respectively. Unno's failure to expressly or inherently describe all of the recitations of Claims 1 and 59 carries over to dependent Claims 2-21 and 60-64.

Furthermore, at least dependent Claims 4-9 and 12-18 include additional recitations that are not described by Unno. The failure of Unno to describe the recitations of those claims precludes an anticipation rejection of dependent Claims 4-9 and 12-18.

Dependent Claims 4, 7, 13, and 16 each recite polarized materials that are "an organic polymer or an inorganic material." Unno does not describe, either expressly or inherently, polarized materials as recited in Claims 4, 7, 13, and 16. The failure of Unno to expressly or inherently describe the recitations of Claims 4, 7, 13, and 16 precludes an anticipation rejection of those claims under 35 U.S.C. § 102(b). *See, Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Dependent Claims 5, 8, 14, and 17 each recite polarized materials that are "an organic polymer selected from the group consisting of a ferroelectric polymer, polyvinylidene fluoride, and a liquid crystal polymer." Unno fails to expressly or inherently describe polarized materials such as those recited in Claims 5, 8, 14, and 17. Unno's failure precludes an anticipation rejection of those claims. *Id.*

Dependent Claims 6, 9, 15, and 18 each recite polarized materials that are "an inorganic material selected from the group consisting of calcite, mica, quartz, and silica." Unno does not describe, either expressly or inherently, polarized materials such as those recited in Claims 6, 9, 15, and 18. Therefore, Unno fails to anticipate Claims 6, 9, 15, and 18. *Id.*

Dependent Claim 12 recites a reticle "wherein the preformed films are Langmuir-Blodgett films." Unno fails to describe such films and therefore fails to anticipate Claim 12.

For at least the foregoing reasons, Claims 1-21 and 59-64 are not anticipated under 35 U.S.C. § 102(b). Applicant respectfully requests the withdrawal of the anticipation rejection of Claims 1-21 and 59-64 based upon Unno.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on U.S. Patent No. 5,459,000 to Unno in view of U.S. Patent No. 6,057,970 to Kim et al.

Claims 1-46 and 59-64 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Unno (U.S. Patent No. 5,459,000) in view of Kim et al. (U.S. Patent No. 6,057,970).

Applicant respectfully traverses this rejection, as hereinafter set forth.

One requirement of a *prima facie* obviousness rejection is that “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” See, M.P.E.P. § 706.02(j) (citing, *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)). In this instance, neither Unno nor Kim et al., alone or in combination, teach or suggest all of the recitations of the claims. Therefore, a *prima facie* obviousness rejection is not supported by the combination of references.

Claims 1, 22, and 59 are independent claims. Claims 2-21, 23-46, and 60-64 depend from Claims 1, 22, and 59, respectively. Unno, Kim et al., and the combination of Unno and Kim et al. at least fails to teach or suggest all of the recitations of independent Claims 1, 22, and 59.

Claim 1 recites, in part, “a reticle including at least one first patterned region at least partially surrounded by at least one second patterned region.” Unno fails to teach or suggest such recitations. The reticle taught by Unno may include patterning thereon but the specific patterning of a first region at least partially surrounded by a second region is not taught or suggested by Unno. The failure of Unno to teach or suggest all of the recitations of Claim 1 precludes a *prima facie* obviousness rejection of Claim 1 based upon Unno alone.

Kim et al. also fails to teach or suggest the recitations of “a reticle including at least one first patterned region at least partially surrounded by at least one second patterned region” as recited in Claim 1. Kim et al. describes an optical system made of a birefringent material which may be used to project an image formed from a mask, or reticle, onto an object. Kim et al. does not teach or suggest a reticle, or mask, wherein a first patterned region is at least partially surrounded by a second patterned region as recited in Claim 1. Therefore, Kim et al. alone fails

to make obvious Claim 1.

The failure of both Unno and Kim et al. to independently teach or suggest the recitations “a reticle including at least one first patterned region at least partially surrounded by at least one second patterned region” as recited in Claim 1 precludes a *prima facie* obviousness rejection based upon a combination of the references. Since neither reference teaches or suggests a reticle having a first pattern at least partially surrounded by a second pattern, the combination also fails to teach or suggest such recitations.

A *prima facie* obviousness rejection under 35 U.S.C. § 103(a) cannot be supported by a combination of references that fails to teach or suggest all of the claim recitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Applicant respectfully requests the withdrawal of the obviousness rejection of Claim 1.

Independent Claim 59 also recites, in part, “a method of fabricating a polarized reticle comprising: providing a reticle having at least one first patterned region at least partially surrounded by at least one second patterned region.” Just as Unno does not describe a method which includes “providing a reticle having at least one first patterned region at least partially surrounded by at least one second patterned region,” Unno does not teach or suggest such a reticle. Unno’s failure to teach or suggest all of the recitations of Claim 59 precludes a *prima facie* obviousness rejection of Claim 59. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Kim et al. also fails to teach or suggest all of the recitations of Claim 59. Kim et al. does not teach or suggest a method of fabricating a polarized reticle, does not teach or suggest a polarized reticle, and does not teach or suggest providing a reticle having a first patterned region at least partially surrounded by a second patterned region in the manner recited in Claim 1. The failure of Kim et al. to teach or suggest all of the recitations of Claim 1 precludes a *prima facie* obviousness rejection of Claim 59 based solely on Kim et al.

The failure of either Unno or Kim et al. to independently teach or suggest at least the recitations of Claim 59 cited herein precludes an obviousness rejection of Claim 59 based upon the combination of the two references. Applicant therefore respectfully requests the withdrawal of the 35 U.S.C. § 103(a) obviousness rejection of Claim 59.

Claim 22 is also an independent claim, and includes the recitations: “a movable half-wave polarizer disposed between a polarized reticle and the illumination source” and a “polarized reticle comprising: a reticle including at least one first patterned region at least partially surrounded by at least one second patterned region.” As with Claims 1 and 59, Unno and Kim et al. fail, alone or in combination, to teach or suggest “a reticle including at least one first patterned region at least partially surrounded by at least one second patterned region.” This failure alone precludes a *prima facie* obviousness rejection of Claim 22.

In addition, neither Unno, Kim et al., nor the combination of Unno with Kim et al. teaches or suggests “a movable half-wave polarizer disposed between a polarized reticle and the illumination source.” Unno does not teach or suggest the use of a half-wave polarizer. Neither does Kim et al. The optical system of Kim et al. may include one or more birefringent materials, however, Kim et al. does not teach or suggest the use of a “moveable half-wave polarizer.” In addition, the optical system of Kim et al. is not “disposed between a polarized reticle and the illumination source.” At most, the optical system of Kim et al. is disposed on the opposite side of a mask from an illumination source. Kim et al. therefore fails to teach or suggest all of the recitations of Claim 22.

The failure of Unno, Kim et al., and the combination of Unno and Kim et al. to teach or suggest all of the recitations of Claim 22 precludes a *prima facie* obviousness rejection of Claim 22. Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) obviousness rejection of Claim 22.

Claims 2-21, 23-46, and 60-64 depend, either directly or indirectly, from independent Claims 1, 22, and 59, respectively. Dependent claims of non-obvious independent claims are also non-obvious. *See*, M.P.E.P. § 2143.03 (citing, *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)(if an independent claim is non-obvious under 35 U.S.C. 103, then any claim depending therefrom is non-obvious). Therefore Claims 2 through 21, 23 through 46, and 60 through 64 are non-obvious because the independent claims from which they depend are non-obvious. Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejection of Claims 2-21, 23-46, and 60-64.

Furthermore, at least dependent Claims 4-9, 12-18, 30-34, 37, 39-43, and 46 are

independently non-obvious because they include recitations which are not taught or suggested by Unno, Kim et al., or the combination of Unno and Kim et al.

Dependent Claims 4, 7, 13, 16, 32, and 41 each recite polarized materials that are “an organic polymer or an inorganic material.” Unno does not teach or suggest polarized materials as recited in Claims 4, 7, 13, 16, 32, and 41. Kim et al. also fails to teach or suggest a polarized reticle having polarized materials that are “an organic polymer or an inorganic material” as recited in the claims. The failure of Unno and Kim et al. to teach or suggest the recitations of Claims 4, 7, 13, 16, 32, and 41 precludes a *prima facie* obviousness rejection of Claims 4, 7, 13, 16, 32, and 41. Applicant requests the withdrawal of the obviousness rejection with respect to these claims.

Dependent Claims 5, 8, 14, 17, 30, 33, 39, and 42 each recite polarized materials that are “an organic polymer selected from the group consisting of a ferroelectric polymer, polyvinylidene fluoride, and a liquid crystal polymer.” Unno fails to teach or suggest such polarized materials. Kim et al. also fails to teach or suggest such polarized materials. The failure of Unno and Kim et al. to teach or suggest such recitations, alone or in combination, precludes an obviousness rejection. Applicant requests the withdrawal of the obviousness rejection with respect to Claims 5, 8, 14, 17, 30, 33, 39, and 42.

Dependent Claims 6, 9, 15, 18, 31, 34, 40, and 43 also include recitations that are not taught or suggested by Unno, Kim et al, or the combination of Unno and Kim et al. Claims 6, 9, 15, 18, 31, 34, 40, and 43 each recite polarized materials that are “an inorganic material selected from the group consisting of calcite, mica, quartz, and silica.” Unno does not teach or suggest such polarized materials used with a reticle. Neither does Kim et al. Although Kim et al. may teach that a “birefringent material may be one of crystal, calcite, mica, or birefringent polymer,” Kim et al. does not teach or suggest the use of such materials as a polarized material on a reticle as recited in claims 6, 9, 15, 18, 31, 34, 40, and 43. *See, Kim et al.* at col. 3, lines 39-40. The failure of Unno and Kim et al. to teach or suggest the recitations of the claims precludes a *prima facie* obviousness rejection of the claims. Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) obviousness rejection of Claims 6, 9, 15, 18, 31, 34, 40, and 43.

Dependent Claims 12, 37, and 46 each recite a reticle “wherein the preformed films are

Langmuir-Blodgett films.” Neither Unno nor Kim et al. teach or suggest preformed films that are Langmuir-Blodgett films. Therefore, neither Unno, Kim et al., nor the combination of the two makes obvious Claims 12, 37, and 46. Applicant respectfully requests the withdrawal of the 35 U.S.C. § 103(a) obviousness rejection of Claims 12, 37, and 46.

For at least the foregoing reasons, Claims 1-46 and 59-64 are not obvious under 35 U.S.C. § 103(a). Applicant respectfully requests that the obviousness rejection of Claims 1 through 46 and 59 through 64 be withdrawn and the claims passed to issue.

CONCLUSION

Claims 1-46 and 59-64 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicant’s undersigned attorney.

Respectfully submitted,



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